

Amendments to the Claims:

Claims 1, 7, 10, 11, 16, 19, 20, 26, 29, 30, and 38-41 have been amended. This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims

1. (Currently Amended) A computer-implemented method of displaying a document using a browser, the method comprising:
 - accessing the document;
 - receiving information identifying user input selecting a set of one or more concepts from a plurality of concepts;
 - ~~determining a set of text patterns associated with the set of concepts, the set of text patterns comprising one or more text patterns associated with the one or more concepts in the set of concepts, wherein a plurality of text patterns are determined for at least one concept in the set of concepts;~~
 - identifying, from previously defined information comprising associations between a plurality of text patterns and the plurality of concepts, one or more text patterns in the plurality of text patterns that are associated with at least one concept in the set of concepts;
 - searching the document to identify occurrences of the one or more text patterns from the set of text patterns in the document; and
 - displaying the document using the browser such that the occurrences of the text patterns in the document are annotated.
2. (Previously Presented) The method of claim 1 wherein the browser is an Internet Explorer browser and the searching uses information about the document stored in a Document Object Model configured by the Internet Explorer browser.
3. (Canceled)
4. (Previously Presented) The method of claim 1 wherein:
 - the browser is an Internet Explorer browser; and

the searching is performed using methods provided by an IHTMLTxtRange interface.

5. (Previously Presented) The method of claim 1 wherein:
the browser is an Internet Explorer browser; and
the searching is performed using methods provided by an IMarkupServices interface.

6. (Previously Presented) The method of claim 1 further comprising marking the occurrences of the text patterns in the document by inserting annotation tags in front of and after each occurrence of a text pattern in the document, wherein the annotation tags for each occurrence of a text pattern identify the concept with which the text pattern is associated.

7. (Currently Amended) The method of claim 6 wherein displaying the document comprises:

for each occurrence of a text pattern from the set of one or more text patterns in the document:

determining the concept with which the text pattern occurrence is associated based upon the annotation tags surrounding the text pattern occurrence;

determining style information to be used for annotating the text pattern occurrence, wherein the style information is associated with the concept with which the text pattern is associated; and

annotating the text pattern occurrence based on the style information.

8. (Previously Presented) The method of claim 7 wherein annotating the text pattern occurrence comprises highlighting the text pattern occurrence in a color indicated by the style information.

9. (Previously Presented) The method of claim 1 further comprising:
calculating a score for each concept in the set of concepts, the score indicating relevance of the document to the concept; and

displaying a relevance indicator for each concept in the set of concepts based on the score for the concept.

10. (Currently Amended) The method of claim 9 wherein calculating the score for each concept in the set of concepts comprises:

for each concept in the set of concepts:

determining frequency of the occurrences of one or more text patterns associated with the concept in the document; and

calculating the score based on the frequency of the occurrences of the text patterns.

11. (Currently Amended) A computer-implemented method of displaying a document using a browser, the method comprising:

accessing a document;

displaying a section of the document in a first viewing area of a display;

extracting contents of the document, the contents comprising text and one or more elements;

displaying a single thumbnail image in a second viewing area of the display based on the contents extracted from the document, the single thumbnail image displaying the contents of the document in a continuous form;

emphasizing an area of the single thumbnail image corresponding to the section of the document displayed in the first viewing area; and

dynamically changing the display of the contents in the single thumbnail image to reflect a change in the display of the document in the first viewing area.

12. (Previously Presented) The method of claim 11 wherein:

extracting the contents of the document comprises:

determining dimension information for the contents; and

determining coordinate information for the contents; and

displaying the single thumbnail image comprises:

displaying the contents in the single thumbnail image based on the dimension and coordinate information for the contents.

13. (Previously Presented) The method of claim 12 wherein displaying the contents in the single thumbnail image based on the dimension and coordinate information for the contents comprises:

for each content:

determining position of the content in the single thumbnail image by dividing the coordinate and dimension information for the content by a reduction ratio.

14. (Previously Presented) The method of claim 11 wherein extracting the contents of the document comprises:

extracting one or more text entities contained in the document;

determining dimension and coordinate information for the one or more text entities;

determining if the one or more text entities are relevant to one or more concepts from a set of concepts; and

associating each text entity that is relevant to a concept with style information for the concept, wherein the style information for a concept indicates a manner of annotating text entities which are relevant to the concept.

15. (Previously Presented) The method of claim 14 wherein displaying the single thumbnail image comprises:

for each text entity that is relevant to a concept from the set of concepts, displaying the text entity in the single thumbnail image using the style information for the concept.

16. (Currently Amended) The method of claim 15 further comprising:
modifying the style information for a concept thereby changing the appearance of the document displayed in the first viewing area;

wherein dynamically changing the display of the contents in the single thumbnail image comprises:

identifying text entities in the document which are relevant to the concept;
and

dynamically changing the display of the identified text entities in the single thumbnail image to reflect the modified style information.

17. (Previously Presented) The method of claim 11 wherein extracting the contents of the document comprises:

extracting one or more forms contained in the document; and
determining dimension and coordinate information for the one or more forms.

18. (Previously Presented) The method of claim 11 wherein extracting the contents of the document comprises:

extracting one or more image elements contained in the document; and
determining dimension and coordinate information for the one or more image elements.

19. (Currently Amended) A computer-implemented method of displaying a document using a browser, the method comprising:

accessing the document;
receiving information identifying user input selecting a set of one or more concepts from a plurality of concepts;
~~determining a set of text patterns associated with the set of concepts, the set of text patterns comprising one or more text patterns associated with the one or more concepts in the set of concepts, wherein a plurality of text patterns are determined for at least one concept in the set of concepts;~~
identifying, from previously defined information comprising associations between a plurality of text patterns and the plurality of concepts, one or more text patterns in the plurality of text patterns that are associated with at least one concept in the set of concepts;

searching the document to identify occurrences of the one or more text patterns from the set of text patterns in the document;

displaying a section of the document in a first viewing area of a display such that the occurrences of the text patterns in the document are annotated;

extracting contents of the document, the contents comprising text and one or more elements;

displaying a single thumbnail image in a second viewing area of the display based on the contents extracted from the document, the single thumbnail image displaying the contents of the document in a continuous form; and

emphasizing an area of the single thumbnail image corresponding to the section of the document displayed in the first viewing area.

20. (Currently Amended) A system for displaying a document using a browser, the system comprising:

a processor; and

a memory coupled to the processor and configured to store a plurality of modules for execution by the processor, the plurality of modules module including:

a module for accessing the document;

a module for receiving ~~information identifying user input selecting~~ a set of one or more concepts from a plurality of concepts;

~~a module for determining a set of text patterns associated with the set of concepts, the set of text patterns comprising one or more text patterns associated with the one or more concepts in the set of concepts, wherein a plurality of text patterns are determined for at least one concept in the set of concepts identifying, from previously defined information comprising associations between a plurality of text patterns and the plurality of concepts, one or more text patterns in the plurality of text patterns that are associated with at least one concept in the set of concepts;~~

a module for searching the document to identify occurrences of the one or more text patterns from the set of text patterns in the document; and

a module for displaying the document using the browser such that the occurrences of the text patterns in the document are annotated.

21. (Previously Presented) The system of claim 20 wherein the browser is an Internet Explorer browser and the module for searching uses information about the document stored in a Document Object Model configured by the Internet Explorer browser.

22. (Canceled)

23. (Previously Presented) The system of claim 20 wherein:
the browser is an Internet Explorer browser; and
the module for searching uses methods provided by an IHTMLTxtRange interface.

24. (Previously Presented) The system of claim 20 wherein:
the browser is an Internet Explorer browser; and
the module for searching uses methods provided by an IMarkupServices interface.

25. (Previously Presented) The system of claim 20 wherein the plurality of modules comprises a module for marking the occurrences of the text patterns from the set of text patterns in the document by inserting annotation tags in front of and after each occurrence of a text pattern in the, wherein the annotation tags for each occurrence of a text pattern identify the concept with which the text pattern is associated.

26. (Currently Amended) The system of claim 25 wherein the module for displaying the document comprises:

for each occurrence of a text pattern from the ~~set of~~ one or more text patterns in the document:

a module for determining the concept with which the text pattern occurrence is associated based upon the annotation tags surrounding the text pattern occurrence;

a module for determining style information to be used for annotating the text pattern occurrence, wherein the style information is associated with the concept with which the text pattern is associated; and

a module for annotating the text pattern occurrence based on the style information.

27. (Previously Presented) The system of claim 26 wherein the module for annotating the text pattern occurrence comprises a module for highlighting the text pattern occurrence in a color indicated by the style information.

28. (Previously Presented) The system of claim 20 wherein the plurality of modules stored in the memory further comprises:

a module for calculating a score for each concept in the set of concepts, the score indicating relevance of the document to the concept; and

a module for displaying a relevance indicator for each concept in the set of concepts based on the score for the concept.

29. (Currently Amended) The system of claim 28 wherein the module for calculating the score for each concept in the set of concepts comprises:

for each concept in the set of concepts:

a module for determining frequency of the occurrences of one or more text patterns associated with the concept in the document; and

a module for calculating the score based on the frequency of the occurrences of the text patterns.

30. (Currently Amended) A system for displaying a document using a browser, the system comprising:

a processor; and

a memory coupled to the processor and configured to store a plurality of modules for execution by the processor, the plurality of modules module including:

a module for accessing a document;
 a module for displaying a section of the document in a first viewing area of a display;
 a module for extracting contents of the document, the contents comprising text and one or more elements;
 a module for displaying a single thumbnail image in a second viewing area of the display based on the contents extracted from the document, the single thumbnail image displaying the contents of the document in a continuous form;
 a module for emphasizing an area of the single thumbnail image corresponding to the section of the document displayed in the first viewing area; and
 a module for dynamically changing the display of the contents in the single thumbnail image to reflect a change in the display of the document in the first viewing area.

31. (Previously Presented) The system of claim 30 wherein:
 the module for extracting the contents of the document comprises:
 a module for determining dimension information for the contents; and
 a module for determining coordinate information for the contents; and
 the module for displaying the single thumbnail image comprises:
 a module for displaying the contents in the single thumbnail image based on the dimension and coordinate information for the contents.

32. (Previously Presented) The system of claim 31 wherein the module for displaying the contents in the single thumbnail image based on the dimension and coordinate information for the contents comprises:

 for each content:
 a module for determining position of the content in the single thumbnail image by dividing the coordinate and dimension information for the content by a reduction ratio.

33. (Previously Presented) The system of claim 30 wherein the module for extracting the contents of the document comprises:

a module for extracting one or more text entities contained in the document;

a module for determining dimension and coordinate information for the one or more text entities;

a module for determining if the one or more text entities are relevant to one or more concepts from a set of concepts; and

a module for associating each text entity that is relevant to a concept with style information for the concept, wherein the style information for a concept indicates a manner of annotating text entities which are relevant to the concept.

34. (Previously Presented) The system of claim 33 wherein the module for displaying the single thumbnail image comprises:

a module for displaying each text entity in the single thumbnail image that is relevant to a concept from the set of concepts using the style information for the concept.

35. (Previously Presented) The system of claim 34 wherein the plurality of modules stored in the memory further comprises:

a module for modifying the style information for a concept;

in response to the modification:

a module for identifying text entities in the document which are relevant to the concept; and

a module for dynamically changing the display of the identified text entities in the single thumbnail image based on the modified style information.

36. (Previously Presented) The system of claim 30 wherein the module for extracting the contents of the document comprises:

a module for extracting one or more forms contained in the document; and

a module for determining dimension and coordinate information for the one or more forms.

37. (Previously Presented) The system of claim 30 wherein the module for extracting the contents of the document comprises:

a module for extracting one or more image elements contained in the document; and

a module for determining dimension and coordinate information for the one or more image elements.

38. (Currently Amended) A system for displaying a document using a browser, the system comprising:

a processor; and

a memory coupled to the processor and configured to store a plurality of modules for execution by the processor, the plurality of modules module including:

a module for accessing the document;

a module for receiving ~~information identifying user input selecting~~ a set of one or more concepts from a plurality of concepts;

~~a module for determining a set of text patterns associated with the set of concepts, the set of text patterns comprising one or more text patterns associated with the one or more concepts in the set of concepts, wherein a plurality of text patterns are determined for at least one concept in the set of concepts identifying, from previously defined information comprising associations between a plurality of text patterns and the plurality of concepts, one or more text patterns in the plurality of text patterns that are associated with at least one concept in the set of concepts;~~

a module for searching the document to identify occurrences of the one or more text patterns ~~from the set of text patterns~~ in the document;

a module for displaying a section of the document in a first viewing area of a display such that the occurrences of the text patterns in the document are annotated;

a module for extracting contents of the document, the contents comprising text and one or more elements;

a module for displaying a single thumbnail image in a second viewing area of the display based on the contents extracted from the document, the single thumbnail image displaying the contents of the document in a continuous form; and

a module for emphasizing an area of the single thumbnail image corresponding to the section of the document displayed in the first viewing area.

39. (Currently Amended) A computer program product stored on a computer readable storage medium for displaying a document using a browser, the computer program product comprising:

code for ~~receiving~~ accessing the document;

code for receiving ~~information identifying user input selecting~~ a set of one or more concepts from a plurality of concepts;

code for ~~determining a set of text patterns associated with the set of concepts, the set of text patterns comprising one or more text patterns associated with the one or more concepts in the set of concepts, wherein a plurality of text patterns are determined for at least one concept in the set of concepts identifying, from previously defined information comprising associations between a plurality of text patterns and the plurality of concepts, one or more text patterns in the plurality of text patterns that are associated with at least one concept in the set of concepts;~~

code for searching the document to identify occurrences of the one or more text patterns ~~from the set of text patterns~~ in the document; and

code for displaying the document using the browser such that the occurrences of the text patterns in the document are annotated.

40. (Currently Amended) A computer program product stored on a computer readable storage medium for displaying a document using a browser, the computer program product comprising:

code for accessing a document;

code for displaying a section of the document in a first viewing area of a display;

code for extracting contents of the document, the contents comprising text and one or more elements;

code for displaying a single thumbnail image in a second viewing area of the display based on the contents extracted from the document, the single thumbnail image displaying the contents of the document in a continuous form;

code for emphasizing an area of the single thumbnail image corresponding to the section of the document displayed in the first viewing area; and

code for dynamically changing the display of the contents in the single thumbnail image to reflect a change in the display of the document in the first viewing area.

41. (Currently Amended) A computer program product stored on a computer readable storage medium for displaying a document using a browser, the computer program product comprising:

code for accessing the document;

code for receiving information identifying user input selecting a set of one or more concepts from a plurality of concepts;

code for determining a set of text patterns associated with the set of concepts, the set of text patterns comprising one or more text patterns associated with the one or more concepts in the set of concepts, wherein a plurality of text patterns are determined for at least one concept in the set of concepts identifying, from previously defined information comprising associations between a plurality of text patterns and the plurality of concepts, one or more text patterns in the plurality of text patterns that are associated with at least one concept in the set of concepts;

code for searching the document to identify occurrences of the one or more text patterns from the set of text patterns in the document;

code for displaying a section of the document in a first viewing area of a display such that the occurrences of the text patterns in the document are annotated;

code for extracting contents of the document, the contents comprising text and one or more elements;

code for displaying a single thumbnail image in a second viewing area of the display based on the contents extracted from the document, the single thumbnail image displaying the contents of the document in a continuous form; and

code for emphasizing an area of the single thumbnail image corresponding to the section of the document displayed in the first viewing area.